



WILLIAM T. PECORA AWARD

John R.G. Townshend

For outstanding leadership in advancing global land remote sensing

Professor John R.G. Townshend is a highly successful and inspiring researcher, educator, and leader in Earth observation and monitoring. For nearly 35 years in academic positions in the United Kingdom, Tanzania, and the United States, he has had a profound influence on the advancement of remote sensing for Earth observation, and in particular, the study of global land characteristics.

Dr. Townshend has conducted pioneering research on global land cover mapping and change detection. He demonstrated that global daily Advanced Very High Resolution Radiometer (AVHRR) satellite images capture unique landscape properties that are important for accurate land cover mapping. His scientific leadership in creating an AVHRR pathfinder activity was particularly important for developing strategies for improved global land observation. Dr. Townshend conducted leading edge instrument research and published a highly influential study on the scale of land change that resulted in the addition of two 250-meter resolution channels on the Moderate Resolution Imaging Spectrometer (MODIS).

Dr. Townshend also made significant contributions to the prototyping of operational assessments of global land cover change using MODIS, and he has contributed to the planning for future operational land cover monitoring capabilities. Dr. Townshend has been instrumental in changing the paradigm for land cover characterization through advances in classification algorithms, improved understanding of the effects of scale on land cover identification, and creation of new strategies such as continuous fields.

As an educator, Dr. Townshend has established an impressive legacy. He played an important role in the transformation of the University of Maryland, Department of Geography into a top graduate research department. As Department Chair and Professor, Dr. Townshend assembled an exceptionally strong faculty with research capabilities in most areas of remote sensing, and has supervised nearly 20 doctoral students, including some of today's leaders in global environmental assessment.

Dr. Townshend recognizes that science leadership is as important as scientific productivity and he has tirelessly and effectively contributed in this area. He is leading the development of the Integrated Global Observing Strategy Land Theme and chairs the Global Observation of Forest Cover initiative of the United Nations Food and Agriculture Organization-led Global Terrestrial Observing System. He chairs the North America Advisory Committee of the United Nations Environment Programme, is the past chair of the International Geosphere-Biosphere Programme (IGBP) Data and Information System group, and was a member of the IGBP Science Steering Committee.

Dr. Townshend has dedicated his career to advancing the study of the changing Earth. He has made a difference through research and education, and he has been both persuasive and tenacious in pursuing goals to advance operational Earth observation and monitoring capabilities. In recognition of these accomplishments, the National Aeronautics and Space Administration and the Department of the Interior take great pleasure in presenting the 2005 William T. Pecora Award to Professor John R.G. Townshend.

Administrator
National Aeronautics and Space Administration

Secretary
Department of the Interior